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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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09/088,737 06/02/98 KOANA

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EXAMINER

POON, K

ART UNIT

PAPER NUMBER

2624

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Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

# Office Action Summary

Application No.  
09/088,737

Applicant(s)  
Ryuzo Koana et al.

Examiner  
King Y. Poon

Art Unit  
2624



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on Apr 25, 2001

2a) ☐ This action is FINAL.

2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) 1, 3-16, and 18-35 is/are pending in the application

4a) Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration

5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.

6) ☒ Claim(s) 1, 3-16, and 18-35 is/are rejected.

7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.

8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirements

## Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☒ All b) ☐ Some\* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.

2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_

3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

DOV POPOVICI  
PRIMARY EXAMINER

## Attachment(s)

15) ☒ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_

18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other: \_\_\_\_\_

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## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 4-5, 10-11, 14-16, 19-20, 25-26, 29-35 are rejected under 35 U.S.C. 102(b) as being anticipated by Hower, Jr. et al. (U.S. Patent # 5,467,434)

Regarding claim 1: Hower discloses a data processing apparatus (system 10 column 3 line 50) having connection means (communication channels 27, column 3 line 66) for being connected to a plurality of image output apparatuses, (printer 12 column 4 line 37, fig. 2) comprising: first obtaining means (examiner, column 4 line 50-65) for obtaining first data (programming selections, column 4 line 53-54) associated with an image output job, (print job, column 5 line 2) the first data being designated by an operator; (user, column 3 line 60) limiting means (job ticket, column 3 line 60-65) for limiting (column 3 line 60-65) the first data which can be designated by the operator; second obtaining means (document directory, fig. 2) for obtaining second data (electronic document, column 3 line 55-60) from the image output job, (both the electronic document and the programming selection are part of a print job, column 5 line 1-10) the second data not being designated by the operator; (the electronic document is

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generated from a document scanner, column 3 line 55-60) selection means (program step of fig. 8) for selecting an image output apparatus, based on the first data and the second data, (column 6 line 20-50) from the plurality of image output apparatuses; and job assigning means (program step 72 of fig. 8) for assigning the image output job to the image output apparatus selected by the selection means, wherein the first data is limited by the limiting means so that the selection means selects at least one of the plurality of image output apparatuses each time an image output job is to be output. (Column 2 line 30-50)

Regarding claim 4: Hower teaches wherein the selection means comprises confirmation means (program step 52, 60, fig. 8) for confirming a function of each of the plurality of image output apparatuses connected by the connection means, and selects the image output apparatus having the function to perform an output operation corresponding to the first and second data. (Column 6 line 20-50)

Regarding claim 5: Hower teaches wherein the confirmation means confirms the function of each of the plurality of image output apparatuses by referring to a memory (memory, abstract) which stores in advance data (printer profile, abstract) indicative of the function of each of the plurality of image output apparatuses connected by the connection means.

Regarding claim 10: Hower teaches wherein in a case where the first data designates to select an image output apparatus capable of printing on both sides (duplex of column 8 line 42) of a recording medium, the selection means confirms a function of each of the plurality of image

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output apparatuses connected by said connection means and selects an image output apparatus which can perform the printing on both sides of the recording medium. (Column 6 line 5-50)

Regarding claim 11: Hower teaches wherein in a case where the first data designates a size of an output image, (page size, column 6 line 4) the selection means confirms a function of each of the plurality of image output apparatuses connected by said connection means and selects an image output apparatus which can perform an output operation in the designated size. (Column 6 line 5-50)

Regarding claim 14: Hower teaches wherein in a case where the first data designates plural output forms, (column 6 line 4-5) the selection means selects an image output apparatus which can perform an output operation in all of the plural output forms. (Column 6 line 5-50)

Regarding claim 15: Hower teaches an image output system (fig. 1) comprising the data processing apparatus (server 25, column 4 line 1) and a plurality of image output apparatuses (printer 12, column 3 line 50-65) connected to the data processing apparatus by the connection means. (Communication channel, column 3 line 66)

Regarding claim 16: Hower teaches a data processing method for executing an image output job (column 5 line 2, and fig. 2) by selecting one of a plurality of image output apparatuses, (printer 12 column 4 line 37, fig. 2) comprising the steps of: obtaining first data (programming selections, column 4 line 53-54, obtained by examiner, column 4 line 50-65) associated with an image output job, (print job, column 5 line 2) the first data being designated by an operator; (user, column 3 line 60); limiting (column 3 line 60-65) the first data which can

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be designated by the operator; obtaining second data (electronic document, column 3 line 55-60) from the image output job, (both the electronic document and the programming selection are part of a print job, column 5 line 1-10) the second data not being designated by the operator; (the electronic document is generated from a document scanner, column 3 line 55-60); selecting (program step of fig. 8) an image output apparatus, based on the first data and the second data, (column 6 line 20-50) from the plurality of image output apparatuses; and assigning (program step 72 of fig. 8) the image output job to the image output apparatus selected in the selecting step, wherein the first data is limited so that the selecting step selects at least one of the plurality of image output apparatuses each time an image output job is to be output. (Column 2 line 30-50)

Regarding claim 19: Hower teaches wherein the selecting step comprises a step of confirming (program step 52, 60, fig. 8) a function of each of the plurality of image output apparatuses, and selects an image output apparatus having a function to perform an output operation corresponding to the first and second data. (Column 6 line 20-50)

Regarding claim 20: Hower teaches wherein in the confirming step, the function of each of the plurality of image output apparatuses is confirmed by referring to a memory (memory, abstract) which stores in advance data (printer profile, abstract) indicative of the function of each of the image output apparatuses.

Regarding claim 25: Hower teaches wherein in a case where the first data designates to select an image output apparatus capable of printing on both sides (duplex, column 8 line 40-45) of a recording medium, in the selecting step, a function of each of the image output apparatuses

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is confirmed and an image output apparatus which can perform the printing on both sides of the recording medium is selected. (Column 6 line 5-50)

Regarding claim 26: Hower teaches wherein in a case where the first data designates a size of an output image, (page size, column 6 line 4) in the selecting step, function of each of the image output apparatuses is confirmed and an image output apparatus which can perform an output operation in the designated size is selected. (Column 6 line 5-50)

Regarding claim 29: Hower teaches wherein in a case where the first data designates plural output forms, (column 6 line 4-5); an image output apparatus which can perform an output operation in all of the plural output forms is selected in the selecting step. (Column 6 line 5-50)

Regarding claim 30: Hower disclosed a data processing apparatus (system 10 column 3 line 50) having connection means (communication channels 27, column 3 line 66) for being connected to a plurality of image output apparatuses, (printer 12 column 4 line 37, fig. 2) comprising: first obtaining means (examiner, column 4 line 50-65) for obtaining first data (programming selections, column 4 line 53-54) associated with an image output job, (print job, column 5 line 2) the first data being designated by an operator; (user, column 3 line 60) limiting means (job ticket, column 3 line 60-65) for limiting (column 3 line 60-65) the first data which can be designated by the operator; second obtaining means (document directory, fig. 2) for obtaining second data (electronic document, column 3 line 55-60) from the image output job, (both the electronic document and the programming selection are part of a print job, column 5 line 1-10) the second data not being designated by the operator; (the electronic document is

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generated from a document scanner, column 3 line 55-60); and selection means (program step of fig. 8) for selecting an image output apparatus, based on the first data and the second data, (column 6 line 20-50) from the plurality of image output apparatuses, wherein the first data is limited by the limiting means so that the selection means selects at least one of the plurality of image output apparatuses each time an image output job is to be output. (Column 2 line 30-50)

Regarding claim 31: Hower teaches a data processing method for executing an image output job (column 5 line 2, and fig. 2) by selecting one of a plurality of image output apparatuses, (printer 12 column 4 line 37, fig. 2) comprising the steps of: obtaining first data (programming selections, column 4 line 53-54, obtained by examiner, column 4 line 50-65) associated with an image output job, (print job, column 5 line 2) the first data being designated by an operator; (user, column 3 line 60); limiting (column 3 line 60-65) the first data which can be designated by the operator; obtaining second data (electronic document, column 3 line 55-60) from the image output job, (both the electronic document and the programming selection are part of a print job, column 5 line 1-10) the second data not being designated by the operator; (the electronic document is generated from a document scanner, column 3 line 55-60); selecting (program step of fig. 8) an image output apparatus, based on the first data and the second data, (column 6 line 20-50) from the plurality of image output apparatuses, wherein the first data is limited so that the selecting step selects at least one of the plurality of image output apparatuses each time an image output job is to be output. (Column 2 line 30-50)



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Regarding claim 32: Hower teaches a memory medium storing program code for controlling a data processing apparatus (server 25 column 4 line 63) which includes connection means (communication channels, column 3 line 66) for being connected to a plurality of image output apparatuses, (printers, column 3 line 35-45) the program code comprising the steps of: obtaining first data (programming selections, column 4 line 53-54, obtained by examiner, column 4 line 50-65) associated with an image output job, (print job, column 5 line 2) the first data being designated by an operator; (user, column 3 line 60); limiting (column 3 line 60-65) the first data which can be designated by the operator; obtaining second data (electronic document, column 3 line 55-60) from the image output job, (both the electronic document and the programming selection are part of a print job, column 5 line 1-10) the second data not being designated by the operator; (the electronic document is generated from a document scanner, column 3 line 55-60); selecting (program step of fig. 8) an image output apparatus, based on the first data and the second data, (column 6 line 20-50) from the plurality of image output apparatuses, and assigning (program step 72 of fig. 8) the image output job to the image output apparatus selected in the selecting step, wherein the first data is limited so that the selecting step selects at least one of the plurality of image output apparatuses each time an image output job is to be output. (Column 2 line 30-50)

Regarding claim 33: Hower teaches a program for controlling a data processing apparatus (server 25 column 4 line 63) which includes connection means (communication channels, column 3 line 66) for being connected to a plurality of image output apparatuses, (printers,

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column 3 line 35-45) the program code comprising the steps of: obtaining first data (programming selections, column 4 line 53-54, obtained by examiner, column 4 line 50-65) associated with an image output job, (print job, column 5 line 2) the first data being designated by an operator; (user, column 3 line 60); limiting (column 3 line 60-65) the first data which can be designated by the operator; obtaining second data (electronic document, column 3 line 55-60) from the image output job, (both the electronic document and the programming selection are part of a print job, column 5 line 1-10) the second data not being designated by the operator; (the electronic document is generated from a document scanner, column 3 line 55-60); selecting (program step of fig. 8) an image output apparatus, based on the first data and the second data, (column 6 line 20-50) from the plurality of image output apparatuses, and assigning (program step 72 of fig. 8) the image output job to the image output apparatus selected in the selecting step, wherein the first data is limited so that the selecting step selects at least one of the plurality of image output apparatuses each time an image output job is to be output. (Column 2 line 30-50)

Regarding claim 34: Hower teaches a memory medium storing program code for controlling a data processing apparatus (server 25 column 4 line 63) which includes connection means (communication channels, column 3 line 66) for being connected to a plurality of image output apparatuses, (printers, column 3 line 35-45) the program code comprising the steps of: obtaining first data (programming selections, column 4 line 53-54, obtained by examiner, column 4 line 50-65) associated with an image output job, (print job, column 5 line 2) the first data being designated by an operator; (user, column 3 line 60); limiting (column 3 line 60-65) the first data

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which can be designated by the operator; obtaining second data (electronic document, column 3 line 55-60) from the image output job, (both the electronic document and the programming selection are part of a print job, column 5 line 1-10) the second data not being designated by the operator; (the electronic document is generated from a document scanner, column 3 line 55-60); selecting (program step of fig. 8) an image output apparatus, based on the first data and the second data, (column 6 line 20-50) from the plurality of image output apparatuses, wherein the first data is limited so that the selecting step selects at least one of the plurality of image output apparatuses each time an image output job is to be output. (Column 2 line 30-50)

Regarding claim 35: Hower teaches a program for controlling a data processing apparatus (server 25 column 4 line 63) which includes connection means (communication channels, column 3 line 66) for being connected to a plurality of image output apparatuses, (printers, column 3 line 35-45) the program code comprising the steps of: obtaining first data (programming selections, column 4 line 53-54, obtained by examiner, column 4 line 50-65) associated with an image output job, (print job, column 5 line 2) the first data being designated by an operator; (user, column 3 line 60); limiting (column 3 line 60-65) the first data which can be designated by the operator; obtaining second data (electronic document, column 3 line 55-60) from the image output job, (both the electronic document and the programming selection are part of a print job, column 5 line 1-10) the second data not being designated by the operator; (the electronic document is generated from a document scanner, column 3 line 55-60); selecting (program step of fig. 8) an image output apparatus, based on the first data and the second data,

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(column 6 line 20-50) from the plurality of image output apparatuses, wherein the first data is limited so that the selecting step selects at least one of the plurality of image output apparatuses each time an image output job is to be output. (Column 2 line 30-50)

*Claim Rejections - 35 USC § 103*

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 6 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hower, Jr. et al. in view of Shibusawa et al. (U.S. Patent # 6,088,120)

Regarding claim 6: Hower, Jr. et al. does not teach wherein the confirmation means confirms the function of each of the plurality of image output apparatuses by communicating with each of the plurality of image output apparatuses connected by the connection means.

Shibusawa, in the same area of selecting a printer to print according to user inputted print attributes, teaches a confirmation means, (physical printer managing means, column 3 line 20-28) confirms the function of each of the plurality of image output apparatuses by communicating with each of the plurality of image output apparatuses connected by the connection means. (Column 3 line 20-30, column 4 line 35-40)

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. to use the confirmation means for confirming the function of each of the plurality of image output apparatuses by communicating with each of the plurality of image output apparatuses connected by the connection means.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. by the teaching of Shibusawa because of the following reasons: (a) to receive the changes of attribute information, such as paper type, of the printers, as taught by Shibusawa at column 4 line 35-40, column 5 line 15-30; (b) updating the changes of attribute information of printers would provide an accurate printer profiles; and (c) in order to confirm the functions of each of the printers by communicating with each of the plurality of printers so that network is updated and the user would know each function of each printer in the network environment.

Regarding claim 21: Hower, Jr. et al. does not teach wherein the confirmation step confirms the function of each of the plurality of image output apparatuses by communicating with each of the plurality of image output apparatuses connected by the connection means.

Shibusawa, in the same area of selecting a printer to print according to user inputted print attributes, teaches a confirmation means, (physical printer managing means, column 3 line 20-28) confirms the function of each of the plurality of image output apparatuses by communicating with each of the plurality of image output apparatuses connected by the connection means. (Column 3 line 20-30, column 4 line 35-40)

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. to include: a confirming step for confirming the function of each of the plurality of image output apparatuses by communicating with each of the plurality of image output apparatuses connected by the connection means.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. by the teaching of Shibusawa because of the following reasons: (a) to receive the changes of attribute information, such as paper type, of the printers, as taught by Shibusawa at column 4 line 35-40, column 5 line 15-30; (b) updating the changes of attribute information of printers would provide an accurate printer profiles; and (c) in order to confirm the functions of each of the printers by communicating with each of the plurality of printers so that network is updated and the user would know each function of each printer in the network environment.

5. Claims 3, 7, 8, 12, 13, 18, 22, 23, 27, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hower, Jr. et al. in view of Lobiondo. (U.S. Patent # 5,287,194)

Regarding claim 3: Hower, Jr. et al. does not specify wherein the selection means selects the image output apparatus further based on states of the image output apparatuses.

Lobiondo, in the same area of selecting a printer to print according to user inputted print attributes, teaches that a scheduler selects an image output apparatus based on states of the image output apparatuses. (See column 3 line 64-65, column 4 line 5-15, column 4 line 50-55 )

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. to include: the selection means selects the image output apparatus further based on states of the image output apparatuses.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. by the teaching of Lobiondo because of the following reasons: (a) it would have allowed the system to print urgent jobs using available printers instead of waiting for a busy printer to speed up the printing process ; (b) it would have allowed the system to allocate print jobs among printers efficiently, as taught by Lobiondo at column 4 line 50-68.

Regarding claim 7: Hower, Jr. et al. does not teach wherein in a case where the first data designates to select an image output apparatus which completes execution of the image output job in a short time period, the selection means selects an image output apparatus which can perform the output operation in a short time period, based on a state of the image output job assigned to each of the image output apparatuses and the second data.

Lobiondo, in the same area of selecting a printer to print according to user inputted print attributes, teaches that a user selects an image output apparatus which completes execution of the image output job in a short time period, (column 4 line 43-46) and a selection means (scheduler, column 4 line 46) selects an image output apparatus which can perform the output operation in a short time period, based on a state of the image output job assigned to each of the image output apparatuses and the second data. (Column 4 line 43-65)

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. to include: the first data designates to select an image output apparatus which completes execution of the image output job in a short time period, and the selection means selects an image output apparatus which can perform the output operation in a short time period, based on a state of the image output job assigned to each of the image output apparatuses and the second data.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. by the teaching of Lobiondo because of the following reasons: (a) it would have allowed the system to print the urgent job first such as the print job that is to be printed in a short time; (b) it would have allowed the system to allocate print jobs among printers efficiently, as taught by Lobiondo at column 4 line 50-68.

Regarding claim 8: Hower does not teach that the data processing apparatus comprising display means for displaying a message regarding an execution state of the image output job assigned to each of the plurality of image output apparatuses connected by the connection means.

Lobiondo teaches a data processing apparatus comprising display means (column 6 line 21) for displaying a message regarding an execution state of the image output job assigned to each of the plurality of image output apparatuses connected by the connection means. (Column 6 line 10-21, column 5 line 10-25)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower to include: a display means for displaying a



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message regarding an execution state of the image output job assigned to each of the plurality of image output apparatuses connected by the connection means.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower by the teaching of Lobiondo because of the following reasons: (a) it would have allowed a user to utilize a different printer when the execution state of the print job indicates that the print job cannot be completed on time, as taught by Lobiondo at column 5 line 25-35; (b) it would have allowed a user to choose the selected full print queue if printing is desired at the specific location selected and completion time is not important, as taught by Lobiondo at column 5 line 25-35.

Regarding claim 12: Hower does not teach wherein in a case where there are plural image output apparatuses which can perform an output operation corresponding to the first and second data, the selection means selects one of the plural image output apparatuses based on priorities set in advance.

Lobiondo, in the same area of selecting a printer to print according to user inputted print attributes, teaches where there are plural image output apparatuses which can perform an output operation (the printer with full print queue, column 5 line 31, and the different printer that can print the print job, column 5 line 28) corresponding to the first and second data, the selection means (scheduler 50 column 4 line 46) selects one of the plural image output apparatuses based on priorities (user selected print location, column 5 line 18) set in advance.

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower to include: where there are plural image output apparatuses which can perform an output operation corresponding to the first and second data, the selection means selects one of the plural image output apparatuses based on priorities set in advance.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower by the teaching of Lobiondo because of the following reasons: (a) it would have allowed print shop managers to organize and optimize printing schedules fully utilizing all the available printing capabilities, as taught by Lobiondo at column 5 line 40-45 (b) allow a user to select a user desired location to print, as taught by Lobiondo at column 5 line 30-33

Regarding claim 13: Hower does not teach wherein in a case where there are plural image output apparatuses which can perform an output operation corresponding to the first and second data, the selection means allows an operator to select one of the plural image output apparatuses.

Lobiondo, in the same area of selecting a printer to print according to user inputted print attributes, teaches where there are plural image output apparatuses which can perform an output operation (the printer with full print queue, column 5 line 31, and the different printer that can print the print job, column 5 line 28) corresponding to the user inputted print conditions (column 4 line 40-55), the selection means (scheduler 50 column 4 line 46) allows an operator to select one of the plural image output apparatuses. (Column 5 line 25-35)

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Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower to include: where there are plural image output apparatuses which can perform an output operation corresponding to the first and second data, the selection means allows an operator to select one of the plural image output apparatuses.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower by the teaching of Lobiondo because of the following reasons: (a) it would have allowed print shop managers to organize and optimize printing schedules fully utilizing all the available printing capabilities, as taught by Lobiondo at column 5 line 40-45.

Regarding claim 18: Hower, Jr. et al. does not specify wherein the selection means selects the image output apparatus further based on states of the image output apparatuses.

Lobiondo, in the same area of selecting a printer to print according to user inputted print attributes, teaches that a scheduler selects an image output apparatus based on states of the image output apparatuses. (See column 3 line 64-65, column 4 line 5-15, column 4 line 50-55 )

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. to include: the selection means selects the image output apparatus further based on states of the image output apparatuses.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. by the teaching of Lobiondo because of the following reasons: (a) it would have allowed the system to print urgent jobs using available

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printers instead of waiting for a busy printer to speed up the printing process ; (b) it would have allowed the system to allocate print jobs among printers efficiently, as taught by Lobiondo at column 4 line 50-68.

Regarding claim 22: Hower does not teach wherein in a case where the first data designates to select an image output apparatus which completes execution of the image output job in a short time period, an image output apparatus which can perform the output operation in a short time period is selected based on a state of the image output job assigned to each of the image output apparatuses and the second data.

Lobiondo, in the same area of selecting a printer to print according to user inputted print attributes, teaches that a user selects an image output apparatus which completes execution of the image output job in a short time period, (column 4 line 43-46) and a selection means (scheduler, column 4 line 46) selects an image output apparatus which can perform the output operation in a short time period, based on a state of the image output job assigned to each of the image output apparatuses and the second data. (Column 4 line 43-65)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower to include: the first data designates to select an image output apparatus which completes execution of the image output job in a short time period, an image output apparatus which can perform the output operation in a short time period is selected based on a state of the image output job assigned to each of the image output apparatuses and the second data.

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It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower by the teaching of Lobiondo because of the following reasons: (a) it would have allowed the system to print the urgent job first such as the print job that is to be printed in a short time; (b) it would have allowed the system to allocate print jobs among printers efficiently, as taught by Lobiondo at column 4 line 50-68.

Regarding claim 23: Hower does not teach that the data processing apparatus comprising display means for displaying a message regarding an execution state of the image output job assigned to each of the plurality of image output apparatuses connected by the connection means.

Lobiondo teaches a data processing apparatus comprising display means (column 6 line 21) for displaying a message regarding an execution state of the image output job assigned to each of the plurality of image output apparatuses connected by the connection means. (Column 6 line 10-21, column 5 line 10-25)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower to include: a display means for displaying a message regarding an execution state of the image output job assigned to each of the plurality of image output apparatuses connected by the connection means.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower by the teaching of Lobiondo because of the following reasons: (a) it would have allowed a user to utilize a different printer when the execution state of the print job indicates that the print job cannot be completed on time, as taught

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by Lobiondo at column 5 line 25-35; (b) it would have allowed a user to choose the selected full print queue if printing is desired at the specific location selected and completion time is not important, as taught by Lobiondo at column 5 line 25-35.

Regarding claim 27: Hower does not teach wherein in a case where there are plural image output apparatuses which can perform an output operation corresponding to the first and second data, one of the plural image output apparatuses is selected based on priorities set in advance.

Lobiondo, in the same area of selecting a printer to print according to user inputted print attributes, teaches where there are plural image output apparatuses which can perform an output operation (the printer with full print queue, column 5 line 31, and the different printer that can print the print job, column 5 line 28) corresponding to the first and second data, the selection means (scheduler 50 column 4 line 46) selects one of the plural image output apparatuses based on priorities (user selected print location, column 5 line 18) set in advance.

Therefore, it would have been obvious to a person having ordinary skill in the at the time the invention was made to have modified Hower to include: where there are plural image output apparatuses which can perform an output operation corresponding to the first and second data, one of the plural image output apparatuses is selected based on priorities set in advance.

It would have been obvious to a person having ordinary skill in the at the time the invention was made to have modified Hower by the teaching of Lobiondo because of the following reasons: (a) it would have allowed print shop managers to organize and optimize printing schedules fully utilizing all the available printing capabilities, as taught by Lobiondo at

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column 5 line 40-45 (b) allow a user to select a user desired location to print, as taught by Lobiondo at column 5 line 30-33.

Regarding claim 28: Hower does not teach wherein in a case where there are plural image output apparatuses which can perform an output operation corresponding to the first and second data, one of the plural image output apparatuses is selected in the selecting step based on an instruction input by an operator.

Lobiondo, in the same area of selecting a printer to print according to user inputted print attributes, teaches where there are plural image output apparatuses which can perform an output operation (the printer with full print queue, column 5 line 31, and the different printer that can print the print job, column 5 line 28) corresponding to the user inputted print conditions (column 4 line 40-55), the selection means (scheduler 50 column 4 line 46) allows an operator to select one of the plural image output apparatuses. (Column 5 line 25-35)

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower to include: where there are plural image output apparatuses which can perform an output operation corresponding to the first and second data, one of the plural image output apparatuses is selected in the selecting step based on an instruction input by an operator.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower by the teaching of Lobiondo because of the following reasons: (a) it would have allowed print shop managers to organize and optimize

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printing schedules fully utilizing all the available printing capabilities, as taught by Lobiondo at column 5 line 40-45

6. Claims 9 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hower, Jr. et al. in view of Barry et al. (U.S. Patent # 5,859,711)

Regarding claim 9: Hower, Jr. et al. does not teach wherein in a case where the first data designates to select an image output apparatus capable of a color image output, the selection means confirms function of each of the image output apparatuses and select an image output apparatus which can perform the color image output.

Barry et al. teaches where data designates to select an image output apparatus capable of a color image output, (column 14 line 1-15, column 14 line 64-68) an image output apparatus which can perform the color image output is selected.

Therefore, it would have been obvious to a person having ordinary skill in the at the time the invention was made to have modified Hower, Jr. et al. to include: wherein in a case where the first data designates to select an image output apparatus capable of a color image output, the selection means confirms function of each of the image output apparatuses and select an image output apparatus which can perform the color image output.

It would have been obvious to a person having ordinary skill in the at the time the invention was made to have modified Hower, Jr. et al by the teaching of Barry et al. because of the following reasons: (a) a cost saving would be achieved since it is cheaper to print black and



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white pages on a black and white printer than it is to print on a color printer, as taught by Barry et al. at column 14 line 39-45; (b) it is faster to print black and white pages on a black and white printer than it is to print on a color printer, as taught by Barry et al. at column 14 line 9-15.

Regarding claim 24: Hower, Jr. et al. does not teach wherein in a case where the first data designates to select an image output apparatus capable of a color image output in the selecting step, a function of each of the image output apparatuses is confirmed, and an image output apparatus which can perform the color image output is selected.

Barry et al. teaches where data designates to select an image output apparatus capable of a color image output, (column 14 line 1-15, column 14 line 64-68) an image output apparatus which can perform the color image output is selected.

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. to include: where the first data designates to select an image output apparatus capable of a color image output in the selecting step, a function of each of the image output apparatuses is confirmed, and an image output apparatus which can perform the color image output is selected.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Hower, Jr. et al. by the teaching of Barry et al. because of the following reasons: (a) a cost saving would be achieved since it is cheaper to print black and white pages on a black and white printer than it is to print on a color printer, as taught by Barry et

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al. at column 14 line 39-45; (b) it is faster to print black and white pages on a black and white printer than it is to print on a color printer, as taught by Barry et al. at column 14 line 9-15.

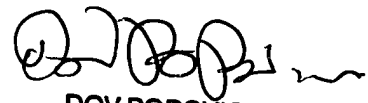
REMARKS

7. Applicant's arguments with respect to claims 1-20 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to King Y. Poon whose telephone number is (703) 305-0892

July 1, 2001

  
DOV POPOVICI  
PRIMARY EXAMINER